

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No. : 10/534,394
Applicant : Bartosz Krzysztof Wasilewski
Confirmation No. : 2861
Filed : November 16, 2005
TC/A.U. : 2617
Examiner : Doan, Phuoc Huu
Customer No. : 27896
Docket No. : 0470.0011C (MSK0010-US)
Title : Statistical Scaling of Soft Decisions before Decoding

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Further to the Notice of Appeal filed herewith, and prior to the filing of an Appeal Brief, Applicant respectfully requests review of the following rejection:

- Claims 12-19 under 35 U.S.C. §103(a) as being unpatentable over Antia (US 6,347,124) in view of Papasakellariou (US 2003/0156563).

Applicant submits that the Antia reference fails to disclose fundamental limitations recited by the claims, and further that Papasakellariou fails to cure the deficiencies of Antia.

Specifically, and in regard to independent claim 12, the Examiner asserts that Antia discloses “monitoring the probability distribution of the amplitudes of the scaled signal values” in col. 5, lines 10-45 of Antia’s specification. Applicant respectfully disagrees. In col. 5, lines 10-45, Antia only discloses how the soft decision process SDP 34 generates soft decision bits, which represent the signal bits of each burst package, by using a scale factor. While the soft decision bits of Antia are scaled signal bits, those scaled signal bits are not the “probability distribution of the amplitudes of the scaled signal bits,” as required by step (b) of claim 12. In fact, and significantly, Antia does not disclose, at all, a step of monitoring the probability distribution of the amplitudes of scaled signal values.

Furthermore, since Antia does not disclose performing a step of monitoring the probability distribution of the amplitudes of the scaled signal values, it follows that Antia can not adjust the scale factor "according to the probability distribution" of the amplitudes of the **scaled** signal values, as required by step (c) of claim 12. In fact, in Antia's teaching, the scale factor is generated only based on an average signal magnitude of signal bits, which are **pre-scaling**, of each burst package. The scale factor in Antia's teaching is not adjusted according to the probability distribution of the amplitudes of the **scaled** signal values, i.e., post-scaling.

As explained in the Amendment filed February 25, 2009, Antia only describes techniques where the scale factor is derived from signal values **pre-scaling**. This is clear from Figure 3 of Antia where the calculation of the average signal value (step 44) applies to the signal **prior** to the scaling being applied (step 48). This is also clear from the description in Antia at columns 4 and 5. Equation 1 therein clearly indicates that the average value is derived from the signal $s(n)$ which is **before** the scaling is applied (the scaling is described in equation 3 and shows the scaled signal s^{\wedge} being derived from s).

Thus, Antia fails to teach both steps (b) and (c) of independent claim 12. And, Papasakellariou adds nothing to overcome the noted deficiencies of Antia.

It is submitted that claim 16 is allowable for at least the same reasons as claim 12.

Further, and in regard to claims 13 and 17, the Examiner's reliance on col. 5, lines 1-45 of Antia is misplaced. There is nothing in that passage that teaches "calculating a **complementary cumulative** probability density function for a signal value magnitude," as required by claims 13 and 17.

Pre-Appeal Brief Request for Review
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In view of the foregoing, reconsideration and withdrawal of the pending §103(a) rejections of the claims are respectfully requested.

Dated: August 14, 2009

Respectfully submitted by:

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